

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for manufacturing a particulate titanium dioxide product, comprising:

providing an aqueous solution of titanium oxychloride having a content of >90 g TiO_2 /l calculated as TiO_2 ;

adding an amount of sulphate in the range of 1 to 5% by weight, calculated on the basis of the amount of TiO_2 in the solution, into the aqueous solution of titanium oxychloride;

adding titanium dioxide particles as crystal nuclei to the aqueous solution of titanium oxychloride;

precipitating hydrated titanium dioxide particles at a temperature of 50 to 100°C, the temperature being below the boiling point of the aqueous solution of titanium oxychloride and at normal pressure to obtain a precipitated hydrated titanium dioxide product;

calcining the precipitated hydrated titanium dioxide product at a temperature of 100 to 500°C to obtain a titanium dioxide product is comprised of more than 70% rutile in a crystal form.

2. (Previously Presented) The process according to claim 1, wherein the content of the aqueous solution of titanium oxychloride is 95 to 300 grams of TiO_2 per litre of aqueous solution.

3. (Previously Presented) The process of according to claim 1, wherein the titanium dioxide particles are added in an amount of 0.5 to 10% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .
4. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as a suspension having an amount of 5 to 100 g/l of TiO_2 .
5. (Previously Presented) The process according to claim 1, wherein the average particle size of the titanium dioxide particles is from 1 to 15 nm.
6. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are of a rutile and/or anatase crystal form.
7. (Previously Presented) The process according to claim 1, wherein the precipitation step is carried out at a temperature between from 60°C to below 100°C.
8. (Previously Presented) The process according to claim 1, wherein the precipitated titanium dioxide product is washed and neutralized with a base to a pH range in a range of from 6 to 10.
9. (Previously Presented) The process according to claim 1, wherein the calcination is performed at a temperature in a range of from 150 to 400°C.

10. (Previously Presented) The process according to claim 1, wherein titanium dioxide product comprises crystals having an average diameter of less than 50 nm.

11. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product has a specific surface area in the range of from 10 to 500 m²/g.

12. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product is comprised of more than 80% rutile in a crystal form.

13-14. (Cancelled)

15. (Currently Amended) A process according to claim ~~[[14]]~~ 12, wherein the titanium dioxide product has activity in the UV region of light.

16. (Previously Presented) A process according to claim 15, wherein the titanium dioxide product has activity in a visible region of light.

17. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product is a photocatalytically active titanium dioxide product.

18-20. (Cancelled)

21. (Previously Presented) A photocatalyst, which comprises titanium dioxide product prepared by a process according to claim 1.

22. (Previously Presented) A product, which has a surface coated at least in part with a photocatalyst coating, which comprises the titanium dioxide product prepared by the process according to claim 1.

23-25. (Cancelled)

26. (Previously Presented) The process according to claim 1, wherein the content of the aqueous solution of titanium oxychloride is 100 to 250 grams of TiO_2 per litre of aqueous solution.

27. (Previously Presented) The process according to claim 1, wherein the content of the aqueous solution of titanium oxychloride is 150 to 230 grams of TiO_2 per litre of aqueous solution.

28. (Previously Presented) The process of according to claim 1, wherein the titanium dioxide particles are added in amount of 1 to 7% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

29. (Previously Presented) The process of according to claim 1, wherein the titanium dioxide particles are added in an amount 1.5 to 5% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

30. (Previously Presented) The process of according to claim 1, wherein the titanium dioxide particles are added at 2 to 5% by weight, calculated on the basis of the total titanium content in the solution of titanium oxychloride and expressed as TiO_2 .

31. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as a suspension having an amount of 10 to 80 g/l of TiO_2 .

32. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as a suspension having an amount of 10 to 50 g/l of TiO_2 .

33. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 100 g/l of TiO_2 .

34. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 80 g/l of TiO_2 .

35. (Previously Presented) The process according to claim 1, wherein the titanium dioxide particles are added as an aqueous suspension having an amount of 10 to 50 g/l of TiO_2 .

36. (Previously Presented) The process according to claim 1, wherein the average particle size of the titanium dioxide particles is from 5 to 15 nm.

37. (Previously Presented) The process according to claim 1, wherein more than 20% of the titanium dioxide are in rutile form.

38. (Previously Presented) The process according to claim 1, wherein the precipitation step is carried out at a temperature between from 70 to 98°C.

39. (Previously Presented) The process according to claim 1, wherein the precipitated titanium dioxide product is washed and neutralized with a base to a pH in a range of from 7 to 9.

40. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product comprises crystals having an average diameter in a range of from 5 to 30 nm.

41. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product comprises crystals having an average diameter in a range of from 5 to 20 nm.

42. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product has a specific surface area in the range of from 10 to 300 m²/g.

43. (Previously Presented) The process according to claim 1, wherein the titanium dioxide product is comprised of more than 90 % rutile in a crystal form.

44. (Currently Amended) The process according to claim [[13]] 1, wherein the sulphate is an acid or a salt.